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10/044,445	01/10/2002	Leland Bruce Traylor	0032/010321	8614

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EXAMINER

COLLINS, GIOVANNA M

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,445

Applicant(s)

TRAYLOR, LELAND BRUCE

Examiner

Giovanna M. Collins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 6/1/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,8,11,12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8,11,12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,3,4, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight ('476) in view of Jensen ('389), Moore (4,585,066) and Applicant's Disclosure.

Knight discloses (see Figs. 11 and 13-15) a single continuous structure capable of being engaged to a pump and to all associated loads comprising mechanical suspension means (318') acting as a primary load bearing element, a flexible tubular conduit (314') capable of conveying fluids from a pump to the earth's surface having sufficient strength to withstand the pressure of the pumped fluid; an cable (316') said cable having insulation means; a jacket (302') attached to the single continuous structure so that the mechanical loads are fully transferred to the mechanical suspension means as the single structure is installed into the well. Knight does not does not specifically disclose a submersible pump or the suspension means, flexible tubing and cable are stored on separate reels and install at the same rate. Jensen et al. teaches that it known in the art to have an electrical submersible pump with a electric cable (which communicates electricity), suspension means and flexible tubular conduit installed by in a well (see Fig. 1, and col. 3, lines 30-43). Moore et al. teaches it in known in the art to store a suspension cable,

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flexible tubing, and electric cable on separate reels especially when the suspension cable,

flexible tubing, and electric cable each have a different thickness (see col. 3, lines 34-50).

Moreover, it would be advantageous to unwind the suspension cable, electric cable and production tubing at the same rate in order to lower the pump evenly in the well. Knight also does not disclose a means to attach the jacket to the single continuous structure. However, in the amended Specification page 4, lines 15-17, the Applicant states that banding machines are well known in the art and commonly used to automatically band electrical cable to production tubing in conventional submersible pump installations. The Jensen and Moore references and the Applicant's disclosure would indicate that one of ordinary skill in the art would be familiar with using a suspension means to lower an electric pump in a well, using separate reels to store different sized cables and tubing and using banding machines to automatically band electrical cable to production tubing in conventional submersible pump installations. Therefore it would be obvious to modify Knight to have the pump be an electrically submersible pump, to have the cable communicate electric power to the pump and a banding machine to automatically band electrical cable to production tubing in conventional submersible pump installations as taught by Jensen, Suman, and the Applicant's disclosure.

Referring to claim 3, Knight discloses wherein the flexible tubular conduit (314') and the electrical cable (315') are attached to the mechanical suspension means (318') at periodic intervals.

Referring to claim 4, Knight discloses wherein the mechanical means is made out of a flexible metallic material (see col. 2, lines 45-46).

Referring to claim 8, Knight discloses wherein the flexible tubular conduit is made out of plastic (see col. 2, lines 35-40).

Referring to claim 11, Knight discloses wherein the electrical cable (318') is unarmored.

2. Claims 12 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen ('389) in view of Moore et al. ('066).

Jensen discloses (see Figs. 13-15) a method to install a pump into a well comprising engaging the mechanical suspension means (6), flexible tubular conduit (8) and the electrical cable (9) to the pump; suspending the pump over the well by the mechanical suspension means; lowering the pump (see col. 1, lines 14-15) into the well by playing out the mechanical suspension means, the tubular conduit and the electrical cable; and locking the pump and all associated loads at the appropriate depth level in the well. Jensen does not disclose the suspension means production tubing and electrical cable are stored on separate reels or attaching the tubing and the electrical cable to the suspension cable. Moore teaches it is known in the art to store a suspension cable, flexible tubing, and electric cable on separate reels, especially when all three have different sizes (see col. 3, lines 34-50). Moore further teaches attaching the tubing and the electrical cable to the suspension cable (see Fig. 1 at 6) to help the suspension cable support the weight (see col. 3, lines 50-55). As one of ordinary skill in the art would be familiar with using separate reels to store separate cables and tubings, and the band helps the cable to support the weight, it would be obvious to one of ordinary skill in the art to modify Jensen to have the cable and tubings stored on different reels and attaching the tubing and the electrical cable to the suspension cable as taught by Moore.

Referring to claim 14, Moore teaches (see Fig. 1) a plurality of jackets (6) are attached periodically suspension cable, production tubing and electrical cable, the jackets comprising clamping means wrapped around the single structure at multiple points.

Referring to claim 15, Moore teaches whereon the clamping means (6) are made out of plastic, metal or rubber (see col. 3, 56-60).

Referring to claim 16, Jensen, as modified discloses raising the pump out of the well see col. 2, lines 43-54) but does not specifically discloses the suspension cable, production tubing and electrical cable are wound around the separate reels at the same rate or removing the jackets as the pump is raised for the well. However, it would be advantageous to wind the suspension cable, production tubing and electrical cable around the reels at the same rate in order to even lift the pump out of the well. Furthermore, since the unit is mobile it would be advantageous to remove the clamps in to wind the different cable around the reels to move to the next well. Therefore it would be obvious to further modify the method disclosed by Jensen to wind the suspension cable, production tubing and electrical cable around the reels at the same rate in order to evenly lift the pump out of the well and remove the jackets in order to store the different tubing on the reels to move to the next well.

Referring to claim 17, Jensen discloses submersible pumping system comprising a submersible pump (5) disposed within a well; a suspension cable (6) extending from said submersible pump; production tubing (8) extending from said submersible pump; an electrical cable (9) extending from said submersible pump to a third reel disposed at the surface. Jensen does not disclose the cable and tubing are stored on separate reels or that clamps are used to

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connect the cable and tubing together. Moore et al. teaches it is known in the art to store a suspension cable, flexible tubing, and electric cable on separate reels especially when the a suspension cable, flexible tubing, and electric cable each have a different thickness (see col. 3, lines 34-50). Moore further teaches using clamps (6) to attach the tubing and the electrical cable to the suspension cable to help the suspension cable support the weight (see col. 3, lines 50-55).). As one of ordinary skill in the art would be familiar with using separate reels to store separate cables and tubing, and a clamping band helps a suspension cable to support the weight, it would be obvious to one of ordinary skill in the art to modify Jensen to have the cable and tubing stored on different reels and attaching the tubing and the electrical cable to the suspension cable as taught by Moore.

Referring to claim 18, Moore teaches a plurality of clamps (6) are installed as a submersible pump is lowered into a well (see 3, lines 34-33).

Referring to claim 19, Jensen discloses a suspension cable (6) operable to support a pump (5), production tubing (8) and electrical cable (9).

Referring to claim 20, Jensen discloses said production tubing (8) is operable to provide fluid communication between said submersible pump and the surface.

Referring to claim 21, Jensen discloses the electrical cable (9) provides power to the pump.

Referring to claim 22, Jensen, as modified, does not specifically disclose the reels are played out at the same rate. However, Jensen does disclose the pump is lowered in the well (see

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col. 2, lines 43-45) and the suspension cable, electric cable and production tubing are all connected to the pump (see Fig. 1). However, it would be advantageous to unwind the suspension cable, electric cable and production tubing at the same rate in order to lower the pump evenly in the well. Therefore it would be obvious to one of ordinary skill in the art to further modify the system disclosed by Jensen to have the reels turn at the same rate in order to evenly lower the pump into the well.

Referring to claim 23, Moore teaches clamps are operable to transmit loads to a suspension cable (see col. 3, lines 50-63).

Response to Arguments

Applicant's arguments with respect to claims 1,3,4,8,12 and 14-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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